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Subject:

**Sludge Removal Area 10 (SR-10)**  
**Ringwood Mines/Landfill Site, Ringwood, New Jersey**

Dear Mr. Gowers:

Date:  
December 1, 2007

ARCADIS G&M, Inc. (ARCADIS), on behalf of the Ford Motor Company (Ford), is submitting this technical memorandum on the surficial paint sludge removal activities in SR-10 at the Ringwood Mines/Landfill Site, Ringwood, New Jersey.

Contact:  
Erich Zimmerman

This letter summarizes the post excavation analytical results and confirms the effectiveness of the removal work. Based on the confirmatory analytical results, the soil remaining in SR-10 does not exceed New Jersey Department of Environmental Protection (NJDEP) Residential Soil Contact Standards (SCS).

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Our ref:  
NJ000604.0029

### **Background**

Surficial paint sludge was observed along Hope Mountain Road approximately 400 feet north of Peter's Mine Pit. This area was designated as SR-10. Removal activities were conducted in the SR-10 area from approximately March 2007 through July 2007. Approximately 550 cubic yards of material were removed from the area and disposed off-site.

### **Confirmatory Sampling**

Side wall post-excavation samples were collected at a frequency of approximately one (1) sample for every 30 linear feet of excavation side wall. Post-excavation bottom samples were collected at a frequency of approximately one (1) sample for every 900 square feet of excavation bottom area. Post-excavation sample locations were biased to locations and intervals expected to have the greatest potential for impact based on field observations. Ten (10) side wall and eight (8) bottom samples were collected. The post-excavation soil samples were analyzed for VOCs, SVOCs, metals, and PCBs. Post-excavation sample locations and analytical results are shown on Drawing 1-SR-10 (attached).

Barium and lead were detected in samples PE-5S, PE-8B, and PE-9B at concentrations greater than the NJDEP direct-contact soil cleanup standard (SCS) of 700 and 400 mg/kg, respectively. Total PCBs were detected in samples PE-4S and PE-10B at concentrations greater than the NJDEP SCS of 0.49 mg/kg. In addition, barium was detected in sample PE-10B at a concentration greater than the NJDEP SCS of 700 mg/kg. Re-excavation continued these locations until post excavation samples indicated the required standards were met. Post-excavation sampling locations are shown on Figure 1, and the results of post-excavation sampling are provided within Table 1.

### Conclusions

Based on the analytical results, constituents in the remaining soils do not exceed NJDEP residential direct-contact standards. ARCADIS requests approval for the backfill and restoration of SR-10 to proceed.

Please feel free to contact me if you have any questions or require additional information.

Sincerely,  
ARCADIS G&M, Inc



Erich Zimmerman, PE  
Project Manager

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